Before the
Federal Communications Commission
Washington, D.C. 20554

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| In the Matter of | ) | |
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| | ) | CG Docket No. 03-123 |
| Telecommunications Relay Services | ) | (Formerly CC Docket 98-67) |
| And Speech-to-Speech Services for | ) | |
| Individuals with Hearing and Speech Disabilities | ) | |
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| Petition for Rulemaking to Mandate | ) | |
| Captioned Telephone | ) | |
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**Petition for Rulemaking to Mandate Captioned Telephone Relay Service and Approve IP Captioned Telephone Relay Service**

## I. Introduction

Self Help for Hard of Hearing People (SHHH), the Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell), the American Academy of Audiology (AAA), the American Association of People with Disabilities (AAPD), the American Speech Speech-Language-Hearing Association (ASHA), the Association of Late-Deafened Adults (ALDA), the Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN), the League for the Hard of Hearing (LHH), the National Association of the Deaf (NAD), the National Cued Speech Association (NCSA), Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), the California Association of the Deaf (CAD) and the California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH) ("Petitioners") hereby petition the Federal Communications Commission (FCC or Commission) to initiate a rulemaking for the

purpose of mandating captioned telephone relay service (captioned telephone) nationwide and approving Internet Protocol (IP) captioned telephone for cost recovery through the Interstate Telecommunications Relay Service (TRS) Fund.

Self Help for Hard of Hearing People is a major consumer organization representing people with hearing loss. Through its national support network, including a Washington D.C. office, thirteen state organizations, and 250 local chapters, SHHH impacts accessibility, public policy, research, public awareness, and service delivery related to hearing loss on a national and global level. The SHHH mission is to open the world of communication to people with hearing loss through information, education, advocacy, and support. SHHH provides cutting edge information to consumers, professionals and family members through its website, www.hearingloss.org, its award-winning publication, Hearing Loss, and national and regional conventions.

Alexander Graham Bell Association for the Deaf and Hard of Hearing promotes spoken language communication for children and adults who are deaf or hard of hearing. Through education, training, advocacy, scholarships and financial aid, AG Bell supports parents of children with hearing loss, professionals in the field of hearing health, and adults who are deaf or hard of hearing. AG Bell's local chapters throughout the United States and international affiliates around the world connect people seeking information and support about spoken language and deafness.

American Academy of Audiology is the world's largest professional organization of audiologists. The active membership of more than 9,600 audiologists join together to provide the highest quality of hearing healthcare service to children and adults. The Academy promotes quality hearing and balance care by advancing the profession of audiology through leadership, advocacy, education, public awareness and support of research.

The American Association of People with Disabilities is the largest cross-disability membership organization in the United States. With more than 110,000 members across the country, AAPD is a national nonpartisan non-profit organization advocating for the political and economic empowerment of the more than 54 million children and adults with disabilities in America. AAPD promotes policies that support the goals of the Americans with Disabilities Act: equality of opportunity, full participation, independent living, and economic self-sufficiency.

The American Speech-Language-Hearing Association is the national professional, scientific, and credentialing organization that represents more than 118,000 audiologists; speech-language pathologists; and speech, language, and hearing scientists.

The Association for Late-Deafened Adults was formed in 1987, and works collaboratively with other organizations around the world to promote public and private programs designed to alleviate the impact of late-deafness and to reintegrate late-deafened adults into all aspects of society. ALDA also provides educational information on issues affecting late-deafened adults, as well as

advocacy on behalf of, and support for, late-deafened adults and their families and friends.

The Deaf and Hard of Hearing Consumer Advocacy Network was established in 1993, is a coalition of national organizations of, by, and for the deaf, hard of hearing, late-deafened, and deaf-blind that seeks to protect and expand the rights of individuals who are deaf, hard of hearing, late-deafened, and deaf-blind in education, employment, telecommunications, technology, health care, and community life. The member organizations of DHHCAN include American Association of the Deaf-Blind, American Deafness and Rehabilitation Association, Association of Late-Deafened Adults, American Society for Deaf Children, Conference of Educational Administrators of Schools and Programs for the Deaf,, Communication Service for the Deaf, Deaf Seniors of America, Gallaudet University, Gallaudet University Alumni Association, Jewish Deaf Congress, National Association of the Deaf, National Black Deaf Advocates, National Catholic Office of the Deaf, Registry of Interpreters for the Deaf, Telecommunications for the Deaf and Hard of Hearing, Inc., USA Deaf Sports Federation, and The Caption Center/WGBH.

The League for the Hard of Hearing was founded in New York in 1910 and is the oldest, private, not-for-profit hearing rehabilitation and human services agency in the world for infants, children, adults and seniors who are hard of hearing, deaf, and deaf-blind and their families. The League's mission is to improve the quality of

life for infants, children, and adults with all degrees of hearing loss, regardless of individual circumstances, ability to pay, or mode of communication.

The National Association of the Deaf was established in 1880, and remains one of the nation's largest constituency organizations safeguarding the accessibility and civil rights of millions of deaf, hard of hearing, late-deafened, and deaf-blind Americans in areas that include education, employment, health care, and telecommunications. A dynamic non-profit federation of state associations, organizational affiliates and direct members, the NAD primarily focuses on grassroots advocacy and empowerment, captioned media, deafness-related information and publications, legal rights technical assistance, policy development and research, and youth leadership development.

The National Cued Speech Association was formed more than 25 years ago to champion effective communication, language development and literacy through the use of Cued Speech. The NCSA serves as a support network for families and professionals that cue, advocates for equal access to communication through Cued Speech, and educates the public on the positive results of cueing.

Telecommunications for the Deaf and Hard of Hearing, Inc. is a national consumer advocacy organization that promotes equal access to telecommunications and media for the 28 million Americans who are deaf, hard of hearing, late-deafened, or deaf-blind. TDI seeks to achieve progress in equal access or functional equivalency in the telecommunications, media, and information technology markets via collaboration between consumers, government officials, and industry

representatives in needs assessment, policy development, research and development, and standard-setting protocols.

California Association of the Deaf is operated of, by, and for the Deaf Community, which advocates, promotes, protects, and supports the rights, social welfare, and high quality of life for Deaf Californians. CAD protects civil rights, which include the empowerment of deaf individuals to exercise self-determination and independence necessary to lead productive lives in the broader community; ensuring equal opportunities for social, educational, employment, and access to services. CAD supports an educational philosophy, which recognizes and honors American Sign Language (ASL) as the natural language of the Deaf Community.

The California Coalition of Agencies Serving the Deaf and Hard of Hearing consists of eight community-based nonprofit agencies providing various social services to deaf and hard-of-hearing Californians. These include Deaf Counseling, Advocacy and Referral Agency; Greater Los Angeles Council on Deafness; NorCal Center on Deafness; Deaf and Hard of Hearing Service Center; Orange County Deaf Equal Access Foundation; Tri-County GLAD; Center on Deafness: Inland Empire; Deaf Community Services of San Diego – and the California Association of the Deaf, a statewide membership organization representing deaf consumers.

## II. Background and History

On July 25, 2003, the FCC approved captioned telephone as a form of enhanced Voice Carry Over (VCO) relay service eligible for reimbursement from the

Interstate TRS Fund under Section 225 of the Communications Act.[1] On July 14, 2005, the FCC held that two-line captioned telephone is also eligible to receive reimbursement from the Interstate TRS Fund.[2] Two-line captioned telephone uses one line for captions and the other for voice, allowing callers to dial 911 directly and to use other conventional telephone network features, including call waiting and call forwarding, that are available to conventional voice telephone users. Captioned telephone, like other relay services, also provides access to answering machines.

Captioned telephone is similar to captioned television; it converts spoken words into written text for viewers to read. The captioned telephone itself looks and works like any traditional phone, with callers talking and listening to each other, but with one very significant difference: real-time captions are displayed on the phone's built-in screen. The service allows the user to speak directly to another party with his or her own voice while its captions allow the user to read the words of the other party and, if he or she has residual hearing, to also listen to the voice of the other party. Another key aspect of captioned telephone is that it maintains nearly the same level of spontaneity as a typical voice-to-voice telephone call. The dialogue is closer to synchronous communication than the asynchronous methods of traditional relay. In this manner, the captioned telephone user can speak directly to another party with his or her own voice, listen to the actual voice and inflections

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[1] *Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Dkt No. 98-67, FCC 03-190, Declaratory Ruling (released August 1, 2003).

[2] *Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Dkt No. 98-67, CG Docket No. 03-123, FCC 05-141, Order (released July 19, 2005) ¶10. Appendix 1 of this petition lists the differences between one and two line captioned telephone.

of the other party, and read the text of the conversation to support and clarify what is heard and understood.

A one- or two-line captioned telephone user places a call in the same way that a voice telephone user places a conventional phone call. As the user dials, the captioned telephone automatically connects to a captioning service. Call set-up is entirely invisible to the user; there is no interaction of any kind between the user and the operator. This improves upon other types of relay services, because it empowers the user to make calls directly and to control the content and flow of the call. For example, if necessary, it is the captioned telephone user, not the relay operator, who is the one who asks the speaker to repeat a word or spell a name.

Captioned telephone calls may also be initiated by non-captioned telephone users, though the manner of achieving this differs between the one- and two-line services. Individuals making incoming calls to a *one-line* captioned telephone user must first dial the toll-free captioning service and then enter the captioned telephone user's number in order for the user to receive captions of the conversation. Callers to a *two-line* captioned telephone user can simply dial the telephone number of the captioned telephone user, and the relay service for the captioned telephone is then connected automatically through the second telephone line. In either case, once the call is connected, the captioned telephone user will be able to hear the calling party and simultaneously read captions of what the calling party is saying. At present, captioned telephone service uses voice recognition software trained to recognize the operator's voice. The operator re-voices what is

said by the other party and then in near-real-time, the system converts the speech to text, which is displayed on the captioned telephone.

Currently, captioned telephone equipment and service is available in 32 states through Ultratec's captioned telephone call center (CapTel).[3] CapTel is also available to current and retired federal employees, veterans and U.S. Tribal members in all 50 states, and individuals having business with the federal government, through the Federal Relay Service.[4] All captioned telephone relay services are now provided from a center in Madison, Wisconsin, operated by CapTel, Inc. and, through two vendors, Hamilton and Sprint.[5] We understand that there is a plan to deploy a multi-center service delivery platform for CapTel in 2006.

## III. The Target Population and Its Unique Needs

The number of Americans who can benefit from a captioned telephone relay mandate is large and expanding. Currently, there are approximately 31 million Americans with mild-to-profound hearing loss, a number that is expected to jump to 40 million in less than a generation.[6] More important than the sheer number of potential users is the fact that captioned telephone appeals to a segment of people

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[3] The following states are now providing some level of captioned telephone service: Alabama, Arkansas, California, Colorado, Connecticut, Florida, Hawaii, Illinois, Indiana, Kentucky, Maine, Maryland, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Wisconsin, and Wyoming. Oklahoma will begin providing service on November 15, 2005, and New Jersey will add service in early 2006. Twenty-six states presently offer two-line captioned telephone service. www.captionedtelephone.com/availability.phtml (retrieved October 20, 2005).

[4] Sprint is presently distributing a limited number of free captioned telephones each month to those eligible for the Federal Relay Service.

[5] The only exception to this are captioned telephone services being offered in Maryland and Pennsylvania, via an extended trial agreement with Ultratec.

[6] *See* Kochkin, S. Ph.D., "MarkeTrakVI: The VA and direct mail sales spark growth in hearing aid market," The Hearing Review, 8(12): 16-24, 63-65 (December 2001); Kochkin, S. Ph.D. "World Age Demography Data-base," BHI (August 2004).

with hearing loss whose communication needs are not adequately met by existing traditional relay services. This underserved population includes those with hearing loss that prefer to use their residual hearing, spoken language, and technology such as hearing aids, cochlear implants and assistive listening devices, to facilitate communication. The vast majority of these individuals lost their hearing after the age of 19, and likely grew up using conventional voice telephones. These individuals may not be comfortable with nor satisfied with using traditional TRS and may not have sign language skills to use VRS. Rather, most of these individuals, especially senior citizens, find it most natural to speak for themselves on the telephone, listen if they can with amplification, and read the captioned display for any part of the conversation they are unable to hear or understand. Others may be late-deafened and simply prefer to use VCO and receive text in a faster and more natural manner than using VCO with TTY. The fluidity of a captioned telephone conversation is what makes it so attractive.

Captioned telephone relay service has already proven its ability to provide the target population with the telephone experience that best approximates that to which they were accustomed before losing their hearing. The enthusiasm and intensity with which consumers have fought to obtain – and sometimes retain – captioned telephone in their home states is testament to the extraordinary ways in which these services have improved the lives of people with hearing loss.[7]

[7] For example, in 2005, the decision of the Pennsylvania Public Utility Commission to temporarily suspend the service while searching for a permanent provider was only overturned after consumer advocates carried out a concentrated letter writing campaign.

In addition to facilitating conversation with friends and family, captioned telephone can provide its users with greater opportunities to seek employment and carry out workplace functions. As Americans continue to work beyond the traditional retirement years, years when a significant number of individuals will develop hearing loss, the need for captioned telephone services becomes more critical. The stress associated with finding a job and retaining employment begs for a solution such as captioned telephone. While ordering a pizza or making an appointment is important, being able to maintain a livelihood to support oneself is critical. If the goal of the Administration is to increase jobs for all, then telephone access needs to be functionally equivalent for all. The petitioners bring to the FCC's attention this segment of our population because it is these individuals whose telephone needs can be brought up to par through captioned telephone services. The majority of consumers who currently use captioned telephone relay services in states where there are trials are adamant that this service is far more effective for them than traditional TTY with VCO.

Unfortunately, even 15 years after passage of the Americans with Disabilities Act (ADA), unemployment among people with hearing loss remains staggering. According to one survey conducted in 2004, the number of individuals who use hearing aids who do not have employment actually increased by 33% since 2000.[8] Research by Gallaudet University similarly revealed that only 12% of people with hearing loss hold managerial positions, compared with 29% of the general

[8] See Kochkin, S. Ph.D., "MarkeTrak VII: Hearing Loss Population Tops 31 Million People," The Hearing Review, 16-29 (July 2005)

population.[9] Likewise, 26% of people with hearing loss hold blue collar jobs, as compared to 12% of the general population.

Consumers have found that captioned telephone relay service is more accepted – and more effective – in employment situations than are other relay services. Because it is not readily apparent to the called business, government, or other entity on the receiving end that the caller is hard of hearing or late-deafened and using an intermediary for assistance, as it is when other forms of relay are used, captioned telephone calls are more readily honored. Once the call is accepted by the recipient, the transparent nature of the captioned telephone process allows the call to flow naturally and swiftly for both parties. In fact, there is such a noticeable difference in the ability to communicate, that individuals relocating to states where captioned telephone is not available find themselves desperate to get the service back because of the benefits it afforded them when conducting business in their previous state of residence.[10]

Captioned telephone users also report that for the first time in their lives, they are receiving return calls from the hearing public on a regular basis. Getting the hearing public (doctors, dentists, attorneys, teachers, etc.) to initiate calls using

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[9] Armstrong, T. Ph.D., "Demographics and Labor Force Aspects of Hearing Loss," GRI Monograph 1993, Center for Assessment and Demographic Studies, Gallaudet University.

[10] On September 29, 2005, a previous Wisconsin CapTel user who relocated to Georgia wrote to Ultratec: "As it turns out being without my CapTel for Georgia calls is proving to be a giant Achilles heel in my life. (Showing once again how invaluable a service CapTel provides!) I am wondering if there is any way possible I could set something up so I can dial from Wisconsin when I call out of Georgia. That sounds inconceivable from the start but what I mean is are there any ways I can pay a long distance charge to use the service of CapTel in Georgia? Perhaps they can flag my phone so it will work out of Georgia using the Wisconsin Relay? Anything that you can think of at all? Being without my CapTel is greatly affecting my job prospects, to the point where I would consider relocating to a CapTel friendly state. Obviously that would be a last resort. I want to be sure I exhaust all possibilities first. . . ." Since this e-mail was written, the writer decided to move to Indiana, in part because that state has approved captioned telephone.

standard forms of TRS has always been difficult. One individual describes how businesses routinely used to fail to return his calls when he left a telephone number for TRS or an IP address for VRS. He explained how this has changed with his two-line captioned telephone:

> My experiences with businesses returning calls via TRS have been rotten. I've yet to receive a successful contact from a business after leaving instructions on using TRS. On a recent occasion, however, I called the Brother Company for tech support to network my new printer and was asked to leave a number to call, as they were busy. This time I left my phone number. To my amazement, the Brother Company called me on my CapTel 1 1/2 hours later and took about 5 minutes to talk me through getting my new printer networked with my computer. In addition to this, most on-line and computerized ordering forms do not have space for TRS numbers plus the phone number or IP address. The use of CapTel eliminates this problem because I can be contacted directly via my regular phone number. Since the installation of the answering machine to my CapTel, I'm amazed at how many calls I have received.[11]

In addition to the ever-increasing population of baby boomers over the age of 65, one in three of whom have some form of hearing loss, recent statistics reveal 169,000 children under 18 who wear hearing aids, and over one million children who could benefit from hearing aids but do not have them.[12] As newborn screening and early identification of hearing loss enable parents to address hearing loss in babies at younger ages, the use of cochlear implants in children with hearing loss is also growing, now at an average rate of 20% each year. Studies have shown that 66% of children with cochlear implants use spoken language as their primary mode of communicating. As they grow up, these children, as well as children who wear

[11] E-mail from Lawrence Brick to Brenda Battat (October 23, 2005).

[12] These estimates are taken from the Hearing Industries Association on pediatric hearing aid sales. Lack of consumer education and the high cost of hearing aids are two reasons for the discrepancy between the number of children who have hearing aids and the number who actually need them. Both groups, however, would benefit from captioned telephone, with or without hearing aids..

hearing aids and other children with residual hearing, will want to use their residual hearing to maintain their independence and privacy. Teenagers especially relish the liberty of talking directly to their friends, hearing their voices, and speaking for themselves. No teenager wants a parent's help to get homework from a friend or even worse, to arrange a date. In addition, because captioned telephone is transparent, this service moves the focus of a telephone conversation away from the child or teenager's hearing loss, furthering the young person's self-esteem and sense of integrity.

Finally, but most importantly, two-line captioned telephone users are finding that this form of relay offers one of the most effective methods of communication, and in several cases, the only form of communication, that they can use to make emergency 911 calls. Many individuals, especially those who have lost their hearing later in life, have losses too severe to use conventional telephones with amplification, yet these individuals do not type (for TTY access), nor do they sign (for VRS access). In addition, it is an unfortunate truth that many 911 call centers, especially in rural and low populated areas, remain inaccessible to TTY calls, despite this being a violation of Title II of the ADA. For all these individuals, two-line captioned telephone may provide the only viable means of calling emergency services. Two-line captioned telephone also facilitates call-backs from 911 PSAPs, because personnel from these centers are able to call back the user directly, without first going through a relay intermediary. Ensuring an effective means of accessing emergency assistance through 911 services is consistent with longstanding

Commission policy, and points to another reason why a mandate for captioned telephone is urgently needed.

## IV. Functional Equivalency

Title IV of the ADA requires TRS to be functionally equivalent to telephone access enjoyed by individuals who are not hard of hearing, deaf, or speech disabled.[13] To achieve functional equivalency, the segment of people with hearing loss for whom this petition is brought need to be able to communicate via the telephone in their preferred mode of communication – spoken language – in the manner that they feel is most natural and on a par with the hearing party at the other end of the call.

It was for this very reason that Congress added a section to Title IV requiring the Commission to make sure that consumers of relay services were to benefit from advancements in technological innovation.[14] On numerous occasions, the FCC has turned to this directive as a springboard to improve TRS. The Commission's approval of VRS, Internet Relay, speech-to-speech relay services, and even captioned telephone service are examples of the Commission's attempts to encourage the development of new technology so that relay users are not left behind as technological advancements take place.

The FCC's Declaratory Ruling approving cost reimbursement for captioned telephone concluded that this service will "provide greater functional equivalence

[13] 47 U.S.C. §225(a)(3).
[14] 47 U.S.C. § 225(d)(2).

for those people who prefer VCO TRS and use this technology."[15] In this regard, the FCC explained that captioned telephone service "is less intrusive and more natural for call participants, and users who become hearing impaired late in life may find it easier to adjust to captioned telephone VCO service than to traditional TRS services."[16] The FCC predicted that this service would "reach a segment of the population that has traditionally not been well serviced by current TRS options."

The FCC was correct in suggesting that captioned telephone is the single most effective means of providing this segment of the population with functionally equivalent telephone service. However, restrictions at the state level have denied captioned telephone access for millions of people with hearing loss. This has occurred in part because unlike VRS and IP Relay – the only other relay technologies that are authorized but not mandated – the FCC has applied the ADA's provisions on jurisdictional separation to captioned telephone relay service. Specifically, because VRS and IP Relay are exclusively reimbursed through the Interstate TRS Fund administered by the National Exchange Carriers Association (NECA), they have a steady funding source at all times. Captioned telephone, on the other hand, mirrors traditional TRS, in that the costs associated with in-state minutes are recoverable from the state, and the costs associated with interstate

[15] Declaratory Ruling at ¶16. In its very first TRS Report and Order, the FCC determined that functional equivalence for people who are late-deafened or hard of hearing included the ability to use VCO, a feature that allows an individual to speak directly to a caller rather than type through an intermediary. However, as the FCC has acknowledged, VCO, by itself, can no longer provide the level of functional equivalence envisioned by the ADA's drafters.

[16] *Id.*

minutes are recoverable from the Interstate Fund.[17] This leaves the provision of in-state captioned telephone calls subject to the limitations and vagaries of each state.

The unfortunate consequence of this arrangement is that captioned telephone has become the *only* form of relay service that is not equally available to all Americans. At the time that this petition is filed, eighteen states do not offer captioned telephone services at all, and the states that do offer these services impose severe restrictions on their residents' participation. Indeed, with the exception of Texas, every state that has authorized captioned telephone allows only a fraction of its residents who need this service to actually participate in its program. For example, Wisconsin, Vermont and South Carolina add a meager five additional individuals to their roster of captioned telephone participants each month. Connecticut, Kentucky, Indiana, Mississippi, Nevada, and Utah limit monthly entry to only ten individuals.[18] As a consequence, a number of states have lengthy waiting lists for the service.

Other jurisdictions that have either been resistant to establishing captioned telephone programs or have unduly restricted their programs include:

- **Massachusetts**: Captioned telephone is not available because state legislation requires that all TRS call centers serving Massachusetts residents be located within the state, and CapTel services are only provided from the Madison, WI center. Virginia circumvented a similar legislative requirement by contracting out for these specialized services (though Virginia, like many other states, still limits the number of its participants).

[17] The one exception to this rule is for inbound two-line captioned telephone calls, for which a specific allocation factor has been created to divide the costs of these calls between the Interstate Fund and the states. This is because it is not possible to determine the jurisdiction of these calls.

[18] Some states also impose income and other limitations on their distribution of captioned telephone devices. But even where consumers can afford to purchase the captioned telephone hardware, they are not permitted to access the captioned telephone relay service when their state does not offer it or otherwise restricts the numbers of its participants.

- **New York**: It is reported that the New York Public Service Commission (NY PSC) maintains that traditional TRS and VRS are sufficient to meet the state's relay needs, despite estimates of upwards of two million New Yorkers with hearing loss. The NY PSC has stated that it will not add captioned telephone until it is mandated by the FCC.
- **Washington State:** Although Washington had a captioned telephone trial, this was terminated as a result of budgetary constraints on the state's limited relay fund.
- **California:** California's initial trial of captioned telephone has dragged on for nearly three years with a pool of only 210 individuals, and an ever growing waiting list. Although in May 2005, California announced that it would transition to an extended trial that will eventually open the service to 200 individuals each month for a 36 month period, the state's bureaucracy continues to delay this process. Even when the new program is put into place, it is questionable whether this capacity will be large enough to handle service demand.
- **Federal Relay Service**: The federal captioned telephone program reached its per year total allocation for end user equipment distribution in August, 2005. The next distribution of devices will not occur until January 2006.

In addition to the above, some states place restrictions on the physical locations where their residents can use their captioned telephone relay services. California only allows its participants to use its services when these residents are physically present in that state. Several other states require at least one leg of the call to be in their home state. Reminiscent of the earliest days of relay services back in the 1980s, this policy, haphazardly applied from state to state, denies users the portability they need while traveling. For consumers with hearing loss, the restrictions that these and other jurisdictions are imposing on captioned telephones are becoming intolerable. Though technologically feasible and proven to be functionally equivalent, this service remains just beyond the reach of the very individuals who so urgently need it. Title IV of the ADA clearly dictates the need for a mandate that will bring these services into their hands.

## V. IP Captioned Telephone

Currently, captioned telephone is only offered via analog technology. However, reliance on analog telephone connections is on the decline. Employers are now routinely equipping their employee's workstations with computers and connections to the Internet. Over the next decade, our society will likely witness a fast-paced migration of voice telephone communications from the public switched telephone network (PSTN) to IP digital transmissions, or VoIP (Voice over IP). As this occurs, captioned telephone relay service users do not want to be left behind.

Petitioners have learned that multiple methods of using Internet transport to produce captioned telephone relay service already have been developed. These methods, which employ computers or captioned telephone devices, will allow voice and text to be carried by IP or a combination of IP and circuits over the PSTN.

The FCC has already recognized the many benefits to consumers that Internet-based relay services – IP Relay and VRS – can offer. Most significantly, IP captioned telephone can offer individuals the flexibility and portability of using a computer, PDA, or wireless device that can receive Internet transmissions. IP captioned telephone can also eliminate the hefty costs associated with purchasing captioned telephone devices. In addition, captions provided on a computer can accommodate a much wider group of individuals: people who are blind, low-vision or deaf-blind will be able to use large text, variable fonts and colors.

In addition to issuing a mandate for captioned telephone in its present form, Petitioners urge the Commission to rule that captioned telephone using Internet

connections or transmissions, once available, will be eligible for cost recovery from the Interstate TRS fund. Petitioners support the use of an interstate model such as that now in use for VRS and IP relay, wherein cost recovery occurs only at the federal level and multiple providers are able to compete for the nation's Internet-based relay customers.

Petitioners additionally believe that a federal certification program for providers of all Interstate-based relay services is sorely needed, whether or not such providers are common carriers or otherwise providing services in association with a state's certified relay program. Currently, interstate relay services receive very little, if any, supervision or monitoring by either state or federal governmental entities. Federal oversight is urgently needed to ensure that all IP relay, VRS, and future IP captioned telephone providers are in full compliance with the FCC's mandatory minimum standards.

## VI. Proprietary Nature of Captioned Telephone Relay Service

Although, at present, Ultatec's CapTel service is the only captioned telephone relay service available, the proprietary nature of this service should not prevent the FCC from mandating what it has called "captioned telephone VCO service." When the FCC issued its Declaratory Ruling approving captioned telephone, it dealt with concerns about captioned telephone being proprietary by establishing a generic term and definition for this service. The Commission explained, "[t]o avoid authorizing a particular proprietary technology, rather than a particular functionality or service, we define the captioned telephone VCO service that we

recognize as TRS in this *Declaratory Ruling* as any service that uses a device that allows the user to simultaneously listen to, and read the text of, what the other party has said, on one standard telephone line."[19] By this action, the Commission made clear that anyone is free to offer a competing captioned telephone VCO service.

It is expected that if a captioned telephone mandate is put into place, other companies will find a way to compete with Ultratec's CapTel service. Moreover, this would not be the first time that the Commission has mandated a proprietary relay technology. The FCC mandated VCO in its very first set of rules governing TRS, despite the fact that Ultratec invented and patented this technology.[20] In addition, although Ultratec's Turbo Code is not mandated, this transmission format carries much of the TTY TRS traffic.

The petitioners thank Ultratec for introducing products earmarked for people who use spoken language and residual hearing. By licensing this innovative telephone invention to other telephone companies, Ultratec has laid the groundwork for a competitive captioned telephone environment. Currently companies competing for this service in various states are Sprint and Hamilton. Ultratec has indicated that it will continue to license its technology if captioned telephone relay service is mandated.

To deny a mandate merely because there is currently only one form of captioned telephone relay service now available would only end up hurting

[19] Declaratory Ruling at ¶17.
[20] 47 C.F.R. §64.604(b)(5).

consumers. Without a mandate, states will continue to withhold or limit this service, to the extreme detriment to individuals who need captioned telephone for equal access to employment, education, recreation, and more generally to the telephone network. All petitioners recognize that captioned telephone is a vital service needed for a specific segment of the population who can benefit from its features, and that a mandate for this service should not be denied merely because of its proprietary nature.

## VII. Mandatory Minimum Captioned Telephone Relay Service Standards

Petitioners urge the FCC to accompany its mandate for captioned telephone with rules containing the following mandatory minimum standards, so that all captioned telephone providers are uniformly in compliance with the ADA's mandate for functionally equivalent relay service:

- Captioned telephone must be automated and invisible to the user. The user should not have to talk to a communication assistant in order to make a call; rather the device used to make the call should operate like a conventional telephone used by voice users. The user must continue to be empowered to make a call independently, without having a third party interrupt the conversation at the beginning or at any point during the call.

- Captioned telephone must be automated and invisible to the other party. With the exception of dialing an 800 access number and then the number of the captioned telephone user being called for inbound one-line calls, the other party should not have to talk to a live communication assistant in order to make or receive a call; rather the captioned telephone relay service should operate exactly like a conventional telephone used by voice users. The other party must be able to make or receive a captioned telephone relay service call without having a third party interrupt the conversation at the beginning or at any point during the call.

- Captions must be fast enough so that they keep up with the speed of the other party's speech. At a minimum, the transcription and transmission speed of the words being captioned should be at least 125 words per minute.

Anything short of this will cause the captions to be too delayed to allow the call to have a natural flow.

- Captioned telephone services must allow for both one line and two line (where one line is for voice and one is for captions) captioned telephone relay service over various transmission methods, pipelines and hybrids – so long as the service provided meets the minimum standards otherwise set for captioned telephone relay service.
- Captioned telephone service providers must test CAs to determine their speed and accuracy.

Finally, any standards adopted by the FCC should allow sufficient flexibility to encourage continued technological innovation to bring consumers with hearing loss closer to receiving complete functional equivalence.

## VII. Conclusion

Telecommunications has entered a new era, in which the millions of Americans who have hearing loss are now able to choose among a wide selection of services designed to meet their communication needs. Over the past decade, technological innovation has resulted in the availability of a wide array of text, voice, and video relay options that have brought the nation closer to the functionally equivalent access envisioned by the drafters of the ADA. The influx of new technology has significantly improved the ability of relay services to meet the communication needs and preferences of a diverse group of individual users. As the first relay service to truly approximate real-time captioning, captioned telephone offers the single most functionally equivalent means of providing individuals with mild-to-severe hearing loss with access to the telephone network. Through this technology, those who are accustomed to speaking for themselves and using their residual hearing are afforded the communication experience that is most natural to

them. Unfortunately, if captioned telephone remains an optional service, millions of Americans who urgently need this service for basic telephone communication and for emergency contact will continue to be denied access.

In accordance with the directives of the ADA and the Communications Act of 1934 to make telecommunications access available to all Americans, we urge the FCC to both mandate PSTN-based captioned telephone and to approve IP captioned telephone as a form of TRS that is eligible for reimbursement through the Interstate TRS Fund. Without these actions, the FCC will be perpetuating existing barriers to telecommunications access for a significant segment of people with hearing loss, rather than dismantling them.

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[21] The California Coalition includes: Norcal Center on Deafness, Greater Los Angeles Agency on Deafness, Deaf and Hard of Hearing Service Center, Inc. Fresno, Deaf Community Services of San Diego, Inc., Center on Deafness Inland Empire, Tri-County GLAD, Orange County Deaf Equal Access Foundation, Deaf Counseling, Advocacy and Referral Agency, San Leandro.

[22] Members of DHHCAN are: American Association of the Deaf-Blind, American Deafness and Rehabilitation Association, Association of Late-Deafened Adults, American Society for Deaf Children, Conference of Educational Administrators of Schools and Programs for the Deaf, Communication Service for the Deaf, Dead Seniors of America, Gallaudet University, Gallaudet University Alumni Association, Jewish Deaf Congress, National Association of the Deaf, National Black Deaf Advocates, National Catholic Office of the Deaf, Registry of Interpreters for the Deaf, Telecommunications for the Deaf and Hard of Hearing Inc., USA Deaf Sports Federation, and the Caption Center/WGBH

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APPENDIX 1

Differences between 1-Line and 2-Line CapTel

| Standard captioned telephone | 2-Line captioned telephone |
|---|---|
| Captions and voice are provided across one telephone line. | Conversation is carried on one line, captions are provided on a second telephone line. |
| Captions must be initiated at the start of a call. | Captions can be turned on or off on demand, at any point in a conversation. |
| Calls are automatically routed through the captioned telephone service on outgoing calls only. Incoming callers must first dial the toll-free captioning service, then enter the captioned telephone user's number, in order for the user to receive captions of the conversation. | Both outgoing and incoming calls are direct between the parties. On every call, callers simply dial the telephone number of the other party. The captioned telephone service is connected automatically through the second telephone line. |
| Call-waiting tones may interrupt captioning support. Call-waiting is therefore not possible during a captioned call. | Call-waiting is available. Because it comes in on the second line, it will not interrupt the captions. |
| Automatic call-back (*69) option cannot be used. | Automatic call-back (*69) option is supported. |
| Calls to 9-1-1 and 7-1-1 are treated as voice carry over calls and routed to 9-1-1 and relay directly. The 9-1-1 or relay operator's typed messages appear on the CapTel display, but the user cannot receive sound over the phone line while receiving captions. | Calls to 9-1-1 and 7-1-1 are captioned through the captioned telephone relay service on the second line. Because the conversation is conducted on the first line, the user receives both sound and captions on the call. |
| Requires one standard (analog) telephone line. | Requires two standard (analog) telephone lines with separate telephone numbers. |